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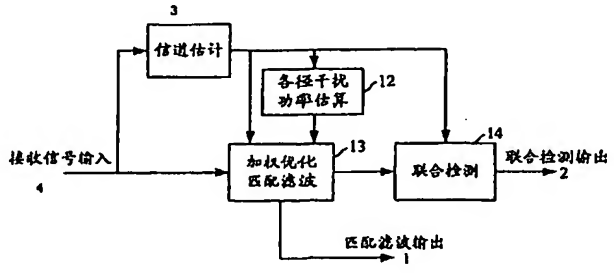
本国际公布:
— 包括国际检索报告。

所引用双字母代码和其它缩写符号, 请参考刊登在每期PCT公报期刊起始的"代码及缩写符号简要说明".

(54) Title: METHOD FOR DETECTING THE ORTHOGONAL CODE CDMA SIGNAL

(54) 发明名称: 正交码CDMA信号检测方法



1 MATCHED FILTERING'S OUTPUT
2 COMBINED DETECT'S OUTPUT
3 CHANNEL ESTIMATION
4 RECEIVED SIGNAL'S INPUT
12 EACH MULTIPATH DISTURB POWER'S ESTIMATION
13 WEIGHTING OPTIMIZED MATCHED FILTERING
14 COMBINED DETECTION

(57) Abstract: The present invention discloses a method for detecting the orthogonal code CDMA signal. It mainly includes: estimating the main power of each multipath signal and performing max proportion combination by using the power of each multipath signal's disturber, in order to get optimized matched filtering output; and united detecting the optimized matched filtering output. It may be two implement: when using the detect implement of optimized matched filtering, it only needs to perform the first two main steps; when using the united detecting implement, it needs to perform all the three steps. For the two implements estimate the main power of each multipath signal's disturber, it needs to select the disturb code's channel which join to estimation, namely select all the code's channel of this subzone or the code's channel of this subzone which not perform united detection. As a result of using the orthogonal code characteristic and channel estimation, improve the system's performance by small cost. It can be especially used in the device of orthogonal code CDMA system.

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(57) 摘要

本发明公开了一种正交码 CDMA 信号的检测方法。实现过程主要包括：估算各个多径信号所受干扰的总功率；对各个多径信号进行匹配滤波并利用各个多径信号所受干扰的功率进行最大比合并，得到优化的匹配滤波输出；和对优化的匹配滤波输出进行联合检测。可有两种实施方案：采用优化匹配滤波检测方案时，只需执行前两个主要步骤；采用联合检测方案时，执行全部三个主要步骤。两种方案在估算各个多径信号所受干扰总功率时，对参与估算的干扰码道需作出选择，即选择本小区所有码道或者不进行联合检测的本小区码道。由于充分利用了正交码的特性和信道估计的结果，以较小的代价改进了系统的性能。尤其适用于正交码码分多址系统的终端设备中。